

IN THE CLAIMS:

The following is a listing of the claims. This listing replaces all prior versions of the claims previously filed.

1. – 66. (Cancel)

67. (Previously Presented) A solid substance comprised by more than one half by weight of hollow carbon nanotubes having walls consisting essentially of two layers of carbon atoms.

68. (Cancel)

69. (Cancel)

70. (Currently Amended) An electron-emissive material comprising a surface consisting primarily of a plurality of emissive tubules ~~The electron-emissive material of claim 68,~~ wherein the electron-emissive material is composed of a mixture of double wall (a) nanotubes and (b)nanotubes[[,]] other than double wall nanotubes which is less than 5 walled.

71. (Cancel)

72. (Cancel)

73. (Previously Presented) The electron-emissive material of claim 70, wherein an overall composition of the electron-emissive material comprises at least 20% of nanotubes, other than double walled nanotubes, said nanotubes being less than 5 walled.

74. (Original) The electron-emissive material of claim 70, wherein an overall composition of the electron-emissive material comprises up to 90% of mixed walled nanotubes.

75. (Currently Amended) An electron emissive material comprising a surface consisting primarily of a plurality of emissive tubules, wherein each of the plurality of emissive tubules

have a controlled number of graphene layers consisting essentially of two cylindrical layers of carbon atoms. ~~The electron-emissive material of claim 68,~~ wherein each of cylindrical layers of the nanotubes have a lattice spacing of 0.35 – 0.45 nm.

76. (Currently Amended) An electron emissive material comprising a surface consisting primarily of a plurality of emissive tubules, wherein each of the plurality of emissive tubules is generally double walled nanotubes ~~The electron-emissive material of claim 69,~~ wherein end cap of the double wall nanotubes with double layer curvature generates greater electric field strength than a single curvature, graphitic sheet, edge or ridge emitter.

77. (Original) The electron-emissive materials of claim 76, wherein the curvature of the double wall nanotubes and sharpened end elements curvature is within the range of 1.7 -5.5 nm.

78. (Currently Amended) An electron emissive material comprising a surface consisting primarily of a plurality of emissive tubules, wherein each of the plurality of emissive tubules is generally double walled nanotubes having two graphene layers. ~~The electron-emissive material of claim 69,~~ wherein the double wall nanotubes have a diameter greater than 1.2 nm.

79. (Previously Presented) The electron-emissive material of claim 78, wherein the majority of the double wall nanotubes have a diameter in the range of 2.7 nm to 5.5 nm.

80. (Currently Amended) The electron-emissive materials of claim ~~69~~ 78, wherein the double wall nanotubes have a length greater than 1000 nm.

81. (Currently Amended) The electron-emissive material of claim ~~69~~ 78, wherein a plurality of the double wall nanotubes are oriented to cause electric field enhancement.

82. (Currently Amended) An electron emissive material comprising a surface consisting primarily of a plurality of emissive tubules, wherein each of the plurality of emissive tubules is generally double walled nanotubes ~~The electron-emissive materials of claim 69,~~ wherein the double wall nanotubes emit an electron at an average electric field of less than 10 V/μm.

83. (Original) The electron-emissive materials of claim 82, wherein the double wall nanotubes are characterized by the emission of electrons at an average electric field of less than $5\text{V}/\mu\text{m}$.

84. (Original) The electron emissive materials of claim 82, wherein the double wall nanotubes are characterized by the cold emission of electrons at an average electric field of less than $2\text{V}/\mu\text{m}$.

85. - 96. (Cancel)